

Work Order ID 104830

104830

Page 1

July-19-13 11:21:10 AM

Item ID: D350-748-201 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Aft Crosstube
 Start Date: 7/19/13 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 7/19/13 Req'd Qty: 1.00 *1* Customer:
 Reference: RA111577

Approvals: Process Plan: *[Signature]* Date: Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D350-748-241	G

100	DOCUMENT CONTROL	0.00	137/24						
100									
DC	Memo	0.00							
Document Control	Photocopy bluefile & type labels per PPPD350-748-201		CHG002						

105	QC 15 Crosstube Dimensional Check	0.00							
105									
QC	Memo	0.00	8/13/07/18						
Quality Control	INSPECT RA111577		X-tube Band Shut Attach						

128		0.00							
128									
Crosstubes	Memo	0.00							
Crosstubes	-MASK OFF AT EDGE OF ABRASION STRIPS -STRIP ALL PAINT AREA FROM EDGE OF ABRASION STRIPS TO TIP OF CUFFS								

DAS
06
8-03

DAS
05
8-03

13-07-23

Work Order ID 104830

104830

Page 2

July-19-13 11:21:10 AM

Item ID: D350-748-201 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Aft Crosstube
 Start Date: 7/19/13 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 7/19/13 Req'd Qty: 1.00 *1* Customer:
 Reference: RA111577

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 *180* SprayPaint	SprayPaint	0.00				1			05 13-07-23
	Memo	0.00							
	1-Prime inside crosstube as per QSI 005 4.2								
	BATCH: 126195								
	2-Paint Outside of Tube as per Dart QSI 005 4.2								
	BATCH: 126300								
190 *190* QC	QC14- Inspect Spray Paint	0.00				1			13-07-24
	Memo	0.00							
	Then, Wrap in plastic bag to protect from scratches								
195 *195* QC	QC5- Inspect part completeness to step on W/O	0.00				1			13-07-24
	Memo	0.00							
	Quality Control								

Work Order ID 104830

104830

Page 3

July-19-13 11:21:10 AM

Item ID: D350-748-201 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Aft Crosstube
 Start Date: 7/19/13 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 7/19/13 Req'd Qty: 1.00 *1* Customer:
 Reference: RA111577

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	Pick Kit	0.00							
220									
Packaging	Memo	0.00							
Packaging	PICK NEW KIT								
230	QC4- 100% Inspect kits for completeness	0.00							
230									
QC	Memo	0.00							
Quality Control									
240		0.00							
240	Packaging								
Packaging	Memo	0.00							
Packaging	REPACKAGE PER PPP USING NEW B/N NEW LABELS AND PAPERWORK REQUIRED - CHG002								
	Identify and pack for shipping as per PPPD350-748-201								
	Location: _____								
	PPP Rev: _____								

43/7/24 (1)

13/7/24

13/7/24 SP

SAP

Work Order ID 104830***104830***

Page 4

July-19-13 11:21:10 AM

Item ID: D350-748-201

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Aft Crosstube

Start Date: 7/19/13 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/19/13 Req'd Qty: 1.00

1

Customer:

Reference: RA111577

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250	QC21- Final Inspection - Work Order Release	0.00							
250									
QC	Memo	0.00							
Quality Control									

MLC 13-07-24

WF
13-7-24

Picklist Print

July-19-13 11:21:10 AM

Page 1

Work Order ID: 104830
Parent Item: D350-748-201
Parent Item Name: Aft Crosstube

Start Date: 7/19/13
Start Qty: 1.00

Required Date: 7/19/13
Required Qty: 1.00

Comments: IPP Rev: A New Issue 06-07-05 JLM
IPP Rev: B Update qty of MS21042L5 06-09-12 KJ
IPP Rev C Combined manufacturing 08.04.02 EC verified by: DD
IPP Rev:D 08-06-24 revD as per dwg DD verified by:EC
IPP Rev: E 08.12.11 Step17 was step 21 KJ Verified by:EC IPP Rev:F 10.08.04 added QSI010
4.3 DD verf:EC IPP REV:G ADD UNDER BEND COMMENT 12-05-28 JLM IPP
REV:H 12.11.05 as per dwg D350-748-141G DD verf:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN4-41A Bolt		Purchased	No				Each	834.0000		834			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST351a		315							
				124805		315							
				ST359		1							
				123346		1							
				ST504		185							
				124836		185							
				ST514		220							
				124241		220							
				ST515		113							
				121185		113							
AN4-6A BOLT		Purchased	No				Each	2,581.0000		16			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST504		1300							
				M126317		1300							
				ST514		1281							
				123355		781							
				M126175		500							

12/1185
16
13/1240
123300

Picklist Print

July-19-13 11:21:10 AM

Page 2

Work Order ID: 104830
Parent Item: D350-748-201
Parent Item Name: Aft Crosstube

Start Date: 7/19/13

Required Date: 7/19/13

Start Qty: 1.00

Required Qty: 1.00

AN5-32A
Bolt

Purchased No

Each 487.0000

Location	Loc Qty	Loc Code
ST337	339	
122800	1	
124215	338	
ST350A	148	
124805	148	

D3500-1
Saddle

Manufactured No

Each 137.0000

Location	Loc Qty	Loc Code
ST243	29	
95067	29	
ST427	8	
98966	8	
ST428A	40	
91888	20	
95810	20	
ST429A	20	
94620	20	
ST437A	40	
95381	40	

D3501-1
BUSHING

Manufactured No

Each 611.0000

Location	Loc Qty	Loc Code
ST043	160	
86913	160	
ST052	80	
103038	80	
ST053	371	
88532	103	
95165	200	
99049	28	
99795	40	

July-19-13 11:21:10 AM

Shop Packet Print

Page 2

Picklist Print

July-19-13 11:21:10 AM

Page 3

Work Order ID: 104830

Parent Item: D350-748-201

Parent Item Name: Aft Crosstube

D350-748-201

Aft Crosstube

MS210421/3

Nut

SL

Manufactured No

Each 0.0000

Purchased No

Each 7,214.0000

Start Date: 7/19/13

Required Date: 7/19/13

Start Qty: 1.00

Required Qty: 1.00

8/13/13 73364
24 -

Location Loc Qty Loc Code

FP001 50

122452 38

8182 12

ST314 10

m125708 10

ST506 11

121444 11

st507 687

125535 95

m126073 592

ST509 4000

m126275 4000

ST510a 2250

m126333 2250

ST518 206

124231 206

m126835

MS210421/5

Nut

SD

Purchased No

Each 1,565.0000

Location Loc Qty Loc Code

ST314 584

125654 584

ST506 1

123900 1

st507 980

125535 980

m125654

July-19-13 11:21:10 AM

Shop Packet Print

Page 3

Picklist Print

July-19-13 11:21:10 AM

Page 4

Work Order ID: 104830
Parent Item: D350-748-201
Parent Item Name: Aft Crosstube
NAS1149D0463J
WASHER

Start Date: 7/19/13

Required Date: 7/19/13

Start Qty: 1.00

Required Qty: 1.00

Purchased

No

Each

8,645.0000

Location

Loc Qty

Loc Code

FP001

2

122441

2

ST007

24

121912

24

ST294

259

119097

1

124198

35

124778

223

ST510a

8360

M126221

8360

m124778

NAS1149D0563J
Washer

Purchased

No

Each

7,074.0000

Location

Loc Qty

Loc Code

ST294

1983

123248

42

123355

30

m125807

1911

ST298

91

122452

91

ST510a

5000

m126319

5000

m125807

July-19-13 11:21:10 AM

Shop Packet Print

Page 4

Instructions for RA 111577 D350-748-101 B66921 CHG 002

- Not at current CHG # but leave at CHG 002
- Tubes measure to current drawings
 - Inspection sheets to be attached to re-work order
- All hardware returned and has been used
 - Give all saddles and hardware to QC for inspection jigs
- Needs to be re painted
 - Mask off at edge of the abrasion strips
 - Strip all area from edge of abrasion strips to tip of cuff
 - Re prime as per QSI 005 & DWG
 - Re paint as per QSI 005 & DWG
- Needs all new hardware and saddles for restocking
- Needs new labels and paper work
- Needs new BATCH # for restocking

Time Estimate = 5 HOURS

Departments Required: Stores & Re painting

Pictures Attached = NO

QTY INSPECTED = x1 D350-748-101 B66921

Instructions for RA 111577 D350-748-201 B73364 CHG 002

- Not at current CHG # but leave at the CHG 002
- Tubes measure to current drawings
 - Inspection sheets to be attached to re-work order
- All hardware returned and has been used
 - Give all saddles and hardware to QC for inspection jigs
- Needs to be re painted
 - Mask off at edge of the abrasion strips
 - Strip all area from edge of abrasion strips to tip of cuff
 - Re prime as per QSI 005 & DWG
 - Re paint as per QSI 005 & DWG
- Needs all new hardware and saddles for restocking
- Needs new labels and paper work
- Needs new BATCH # for restocking

Time Estimate = 5 HOURS

Departments Required: Stores & Re painting

Pictures Attached = NO

QTY INSPECTED = x1 D350-748-201 B73364

104830

**THIS INSTRUCTION SHEET MUST
BE ATTACHED TO THE
RESTOCKING WORK ORDER AT
ALL TIMES!!!!**

RA 111577

Received @ Dart July 15th, 2013
Inspected@ Dart July 18th, 2013

CUSTOMER: ERA HELICOPTERS LLC
CUSTOMER CONTACT: CHAD HINE
SHIPPED FROM: LAKE CHARLES LA, USA

Instructions for RA 111577 D350-636-013 B99912 CHG 006

- Still at current CHG #
- FWD bend angle is at 0.51*
- Kit complete
- Minor touch ups required
- Return to stock under new BATCH #
- Needs new labels and paper works

Time Estimate = 1 HOUR ONLY (stores)

Departments Required: Stores (restocking)

Pictures Attached = NO

QTY INSPECTED = x1 D350-636-013 B99912

Instructions for RA 111577 D350-636-014 B82789 CHG 006

- Still at current CHG #
- FWD bend angle is at 1.44*
- Missing kit. No hardware returned
- Minor touch ups required
- Return to stock under new BATCH #
- Needs new labels and paper works

Time Estimate = 1 HOUR ONLY (stores)

Departments Required: Stores (restocking)

Pictures Attached = NO

QTY INSPECTED = x1 D350-636-014 B82789



70 Aberdeen Street
Lawkesbury, Ontario K6A 1K7

RETURN AUTHORIZATION

Date: 13-06-18
Customer Name: ERA HELICOPTERS. LLC
Customer Code: ERAH01
Telephone No: 337 656 4562
E-mail Address: chine@erahelicopters.com
Contact Name: CHAD HINE
Issued by: M. BELLAVANCE

DART RA Number: RA111577
DHS RA Number:
DHS PO #: PO6315 / 11420
DART Invoice #: INV112393 / INV106519
Customer Ref: 15-059328-2013 / PO245-037926
PAR/CAR/NCR/SQ: NCR13-2757

Quantity	Part Number	Description	Batch Number
1	D350-636-013	SKIDTUBE, LH 104827	B99912
1	D350-636-014	SKIDTUBE, RH 104828	B82789
1	D350-748-101	CROSSTUBE, FWD 104829	B66921
1	D350-748-201	CROSSTUBE, AFT 104830	B73364

Reason for Return:
ERA RETURNING REQUESTED RETURN OF THE LANDING GEAR DUE TO
COSMETIC FIT ISSUES. NO CHARGE REPLACEMENT PROVIDED ON NCR13-2757.

Credit Instructions:

☐ Full credit
☒ None

Return Instructions:
Commerical Invoice Yes ☒
Documentation (STC/ARC/ICA) Yes ☒
Packing Slip Yes ☒

Include on Commerical Invoice:
Part Number/Description / Value in USD
Parts are aircraft parts / return to Manufacturer

Shipping Instructions: Prepaid Collect DAS Courier FEDEX
Account # 1517-9324-0

RECEIVING RETURN AUTHORIZATION

Receiver: <i>PC</i>	Condition of Packaging: <i>GOOD</i>			Paperwork: P/L	Photograph Required	
Date: <i>13/7/15</i>	Freight Company: <i>FEDEX NIGHT</i>			RA	NONE	Yes No
Quantity	Part Number	Batch	QC Verification	CHG #	W/O#	Disposition
	<i>D350-636-013</i>		<i>79912</i>			
	<i>01124</i>		<i>103833</i>			
	<i>7507</i>		<i>103833</i>			
	<i>201</i>	<i>1.44</i>	<i>103833</i>	<i>-0.51</i>		
	<i>D350-636-014</i>	<i>B 82789</i>	<i>1</i>	<i>D350-636-012</i>	<i>B 99912</i>	<i>CH 1006</i>
	<i>D350-748-001</i>	<i>B 66921</i>	<i>1</i>	<i>D350-748-201</i>	<i>B 73364</i>	

QC Inspector: *DAS* Photograph Attached Condition:
Date: *16* Yes No Sealed Complete Short H/W Short Kit No P/W Damaged
9-03 *13/07/18*

QC Comments:
X See Attached RA Form From QC

Special Return/Rework Instructions:

QC + Matic B. to evaluate before proceeding

Issue Credit: Yes No

Invoice Amount:

GM Approval: _____

Date: _____

Restocking Fee:

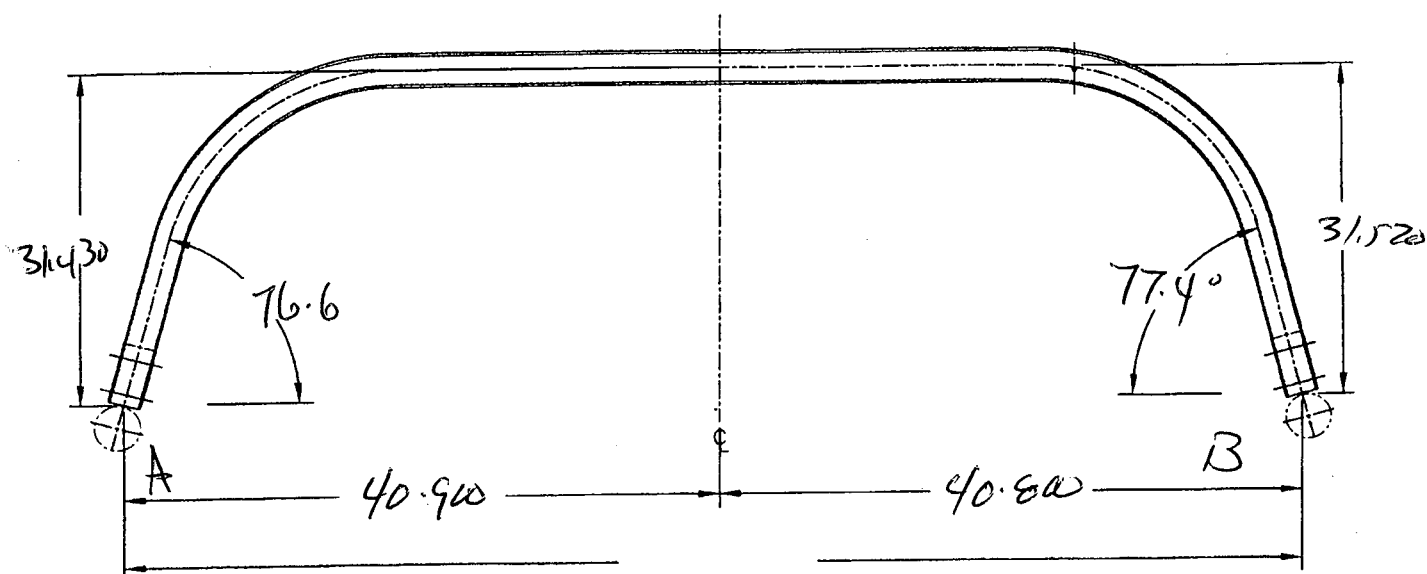
Freight:

Net Credit:

Quality Assurance: _____ Close Date: _____

DART AEROSPACE LTD	Work Order:	
Description: Crosstube High Aft (AS350/355)	Part Number:	D350-748-201
Inspection Dwg: D350-748-241 Rev: G		Page 1 of 1

Required Dimension	Min	Max
Height	31.22	31.48
1/2 Span	40.77	41.03
Angle	75	77
Total Span	81.54	82.06
Bending Passes	7	--
Crushing	--	6%
Twist	--	0.25



	Side A	Side B
Bending Passes		
Crushing		
Comments		

QC15 Inspection	S 13/07/12
Date	

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	
B	10.08.23	Dwg Rev updated	KJ	
C	12.04.16	Added bending, crushing & twist dimensions	KJ	
D	12.07.31	Dwg Rev updated	KJ	
E	13.02.27	Dwg Rev updated	KJ	

13/7/24 sf
REFERENCE ONLY

5.0 PARTS LIST

Qty 101	Qty 201	Part Number	Description
X1	X	D350-748-101	CROSSTUBE INSTALLATION, AS 350/355 HIGH FWD
	X	D350-748-201	CROSSTUBE INSTALLATION, AS 350/355 HIGH AFT
		D350-748-141	CROSSTUBE ASSEMBLY, AS 350/355 HIGH FWD
		D350-748-241	CROSSTUBE ASSEMBLY, AS 350/355 HIGH AFT
*2	*2	D3502-1	SUPPORT
*2	*2	D2856-400-710	ABRASION STRIP
*1	*1	AELS-1032-225	INSERT
*2	*2	MS21920-20	CLAMP
*1	*1	MS27039-1-10	SCREW
*1	*1	AN960JD10	WASHER
4	4	D3500-1	SADDLE
16	16	D3501-1	BUSHING
16	16	AN4-6A	BOLT
8	8	AN4-41A	BOLT
4	4	AN5-32A	BOLT
32	32	AN960JD416	WASHER
8	8	AN960JD516	WASHER
24	24	MS21042L4	NUT (OR MS21042-4)
4	4	MS21042L5	NUT (OR MS21042-5)

* REFERENCE ONLY. PARTS ARE INCLUDED IN D350-748-141/241 ASSEMBLIES ABOVE

• COPYRIGHT © 2006 BY DART AEROSPACE LTD •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: B
Date: 07.06.15

Work Order ID 104830

104830

Page 1

July-19-13 11:21:10 AM

Item ID: D350-748-201

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Aft Crosstube

Start Date: 7/19/13 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/19/13 Req'd Qty: 1.00

1

Customer:

Reference: RA111577

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D350-748-241

G

100

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPPD350-748-201 CHG002

105

QC15 Crosstube Dimensional Check

0.00

105

QC

Memo

0.00

Quality Control

INSPECT RA111577

8/3/07/18
X-tube Band Shut Attach

128

0.00

128

Crosstubes

Memo

0.00

Crosstubes

-MASK OFF AT EDGE OF ABRASION STRIPS
-STRIP ALL PAINT AREA FROM EDGE
OF ABRASION STRIPS TO TIP OF CUFFS

MLJ
B-07-24

05
13-07-23